

Receiving Report

Date: 12/9/18

Batch No: M130415

Supplier: BEARW

Dart P/O: 25807

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☒
 New Supplier Yes ☐ No ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☐ No ☒
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC18 Inspection ☐ N/A ☒
 Work Order ☐ N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Rec'd	Quantity Short	Quantity Inspected	Quantity Rejected	Comment / NCR Number

Initials of Receiver QC12

Production/Admin:
 Date
 Received/Costing
 Initial

Location



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO25807**

Purchase Order Date 9/17/2014

PO Print Date 9/17/2014

Page Number 1 of 2

Order From :

VU-BEA001

Ship To : DART AEROSPACE LTD

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx Overnight collect

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	CR3523-4-02	RIVET	9/18/2014 Yes 9/18/2014		1,000.00 Each	\$0.95	\$950.00

Line Total: \$950.00

Deliver To: SYLVIE

2	71401-45	PROCUREMENT QUALITY CLAUSES	9/18/2014 No 9/18/2014		1.00	\$0.00	\$0.00
---	----------	--------------------------------	------------------------------	--	------	--------	--------

Procurement Quality Clauses
A005 RIGHT OF ENTRY
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT
A033 STATEMENT OF CONFORMITY/TEST RECORDS
FOR NAS, AN and MS FASTENERS
A040 NOTIFICATION OF QUALITY ESCAPE
A041 QUALITY MANAGEMENT SYSTEM
A042 DART NOTIFICATION BY SUPPLIER
A043 RETENTION OF QUALITY DOCUMENTS

Line Total: \$0.00

Note:

9/17/2014



B/E Aerospace, Inc.

CONSUMABLES MANAGEMENT

Tel: +1.305.925.2600 • Fax: +1.305.507.7191 • www.beconsumables.com
Remit to Address: 88289 Expedite Way, Chicago, IL 60695-0001
Wire Instructions: B/E Aerospace Consumables Management • JPMorgan Chase Bank New York
ABA: 021000021 • Account: 304639273 • SWIFT: CHASUS33 • CHIP UID: 0002



INVOICE NUMBER

HW94ZR

PAGE 1 OF 1

SEND TO ACCOUNTING

SOLD TO:

002409

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7

SHIP TO:

DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY, ON
CANADA K6A 1K7



ORDER NO. PO25807		DATE 09/17/14	SHIP VIA FEDX INTL P1 COLL		TERMS NET 45		SHIPPING TERMS FOB-MIAMI		
ITEM NO.	QUANTITY ORDERED	PART NUMBER AND DESCRIPTION			PRICE	UNIT	BACK ORDER	SHIPPED	AMOUNT
1	1000	CR3523-4-02 CR MAX RIVET Country Origin: USA TARIFF: 7318.23.0000 MFR: CHERRY AEROSPACE SANTA AN CTRL# : 2014C06466 LOT# : 87912015 LOT QTY: 1000 COUNTRY OF ORIGIN: USA Country of Origin: USA These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to U.S. law is prohibited. *** SHIPPED 1 CTN *** # 1=CTN 4# 0 OZ. 616010382965 FREIGHT ACCT# 15179324-0			0.95	EA	0	1000	950.00
							SUBTOTAL :		950.00
							HANDLING :		0.00
							DISC/ALL :		0.00
							INCM FRT :		0.00
							FREIGHT :		0.00
							TOTAL :		950.00USD
									U.S. CURRENCY
MATERIAL TO BE RETURNED MUST HAVE PRIOR AUTHORIZATION BY B/E AEROSPACE									

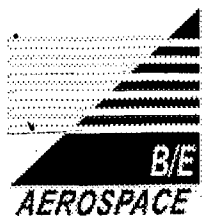
ALL ITEMS ARE SUBJECT TO A 100% RESTOCKING CHARGE.

SHIPPED FROM: 10000 NW 15 TERRACE, MIAMI, FL 33172



ORIGINAL INVOICE

BY RECEIVING DELIVERY OF THE ITEMS COVERED BY THIS INVOICE, BUYER AGREES TO THE TERMS AND CONDITIONS OF SALE AT:
http://www.beconsumables.com/cm/conditions_of_sale.cfm



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172

Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO25807

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
1	1000	EA	CR3523-4-02		87912015	CHERRY AEROSPACE SAN	11815		


Jason Lewis
Vice President of Quality

09/17/14



CHERRY®
AEROSPACE
 SPS Fastener Division, a PCC Company

Cherry Aerospace
 1224 East Warner Avenue
 Post Office Box 2157
 Santa Ana, CA 92707-0157
 USA



PACKING LIST

Order No: S0371011
 Order Date: 08/21/12
 Print Date: 02/24/14

Page: 1



Sold-To: 10015341

Ship-To: 10043053

S O L D T O	B/E AEROSPACE
	PO BOX 025263
	MIAMI, FL 33102-5263
	USA

S H I P T O	B/E AEROSPACE INC,
	CONSUMABLES MANAGEMENT
	9835 NW 14TH ST
	MIAMI, FL 33172
	USA

Salesperson (s):110

Purchase Order: 0KAR26

Credit Terms: NET 30
 Net 30

Ship Via: FED EX NATIONAL CL
 FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
 IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
 DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS
 DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

 BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
 AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

ECCN: EAR99

*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7009 ALT I
 *PREFERENCE FOR DOMESTIC SPECIALTY METALS



CHERRY DOES NOT ACCEPT QAP33 A.3 ITEM 3

Unless otherwise specified on this order, Cherry will manufacture and
 certify parts to the part number's latest revision. Latest revisions are
 shown at <https://bizpartner.cherryaerospace.com/partrevisions.htm> under
 "Part Number Revision List".

FOR EUROPEAN SHIPMENTS WITH A MAX WEIGHT OF 150# PER PKG AND/OR A MAX
 LENGTH OF 274CM PLEASE USE FEDEX ACCOUNT# 2259-703-43

TEST REPORTS ENCLOSED

DO NOT DESTROY

Ln	Item Number	Site T LocationLot/Serial	Qty Open Qty to Ship	UM	Promised Shipped	
4	CR3523-4-02 Customer Item: NAS9307M-4-02 	1600 A0104 87911470	15825.0	EA	03/14/14	

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

Quality Assurance Representative

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Signed

SIM NGUYEN





CHERRY®
AEROSPACE

SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: SOE71011
Order Date: 08/21/12
Print Date: 02/24/14

Page: 2

Sold-To: 10015341

Ship-To: 10043053

S
O
L
D
T
O

B/E AEROSPACE
PO BOX 025263
MIAMI, FL 33102-5263
USA

S
H
I
P
T
O

B/E AEROSPACE INC,
CONSUMABLES MANAGEMENT
9835 NW 14TH ST
MIAMI, FL 33172
USA

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
		A0305 87912980	16527.0	()	
		A0403 87904830	13347.0	()	
		B0405 87905734	16392.0	()	
		B0905 87902867	631.0	()	
		C0202 87905302	16211.0	()	
		D0302 87902405	3577.0	()	
		D0503 87903304	3334.0	()	
		D0705 87902866	15000.0	()	
		D0903 87904049	15317.0	()	
		E0706 87913540	11900.0	()	
		H0305 87912978	16421.0	()	
		H0403 87912015	10991.0	()	
		H0603 87902857	15321.0	()	
		H0805 87905301	16040.0	()	
		I0203 87905300	16083.0	()	
		I0304 87911469	15662.0	()	
		J0106 87904050	16474.0	()	
		M0504 87904829	14966.0	()	

Test Reports Enclosed
Do Not Destroy

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

ATTENTION: PURCHASING DEPARTMENT

Quality Assurance Representative

Signed

SIM NGUYEN

**CHERRY** *AEROSPACESFS Fastener Division, a PCC Company1224 East Warner Avenue
Santa Ana, CA 92707-0157Accredited
NadcapChemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab**Final Inspection & Test Report**
CherryMax® Rivet**An ISO9001 and AS9100 registered company. OASIS #6111041606**

Part Numbers	Rev	Proc. Spec.	Rev	Lot I.D. No.: 87912015
CR3523-4-02	AE	PS-CMR-3000	R	
CR3523PR-4-02	AE	PS-CMR-3000	R	
** See 2nd Page for the Customer Parts				Lot Size: 11,100
				MFG. Date: January 31, 2014

ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	87841222	A73175	QQ-N-281/MONEL	None	None
Stem	87785432	A71609	AMS5657 / 15-7PH	None	AS5272, Type 1, Moly Disulfide
Collar	00000000	A73929	A-286 / AMS5731	Passivate per AMS2700	None

W.O. #: 5540556

Final Lube: None

QUALITY CONFORMANCE/ACCEPTANCE RESULTS

MIN REQ'D SAMPLE SIZE SPECS	INSTALLED SHEAR		TENSION		SPINDLE RETENTION		DISASSEMBLY
	651		400		150		10
	5	N/A	5	N/A	5	N/A	5
	C-N	B	C-N	B	C-N	B	C-N
RESULTS	1046		688		227		42
	1061		678		236		87
	997		668		242		72
	1061		656		230		72
	1002		663		251		72

C=CR N=NAS
M=MIL B=BAC
LOAD VALUES
IN POUND

<u>PCS.</u>	<u>ITEM</u>	<u>STATUS</u>	<u>PCS.</u>	<u>ITEM</u>	<u>STATUS</u>
<u>20</u>	EXAMINATION	PASS	<u>20</u>	INSTALLATION (Min and Max Grips)	PASS

Comments:

Blind Fastener

Tr. Rev: -
Rev. Date: 1/31/2014Q Code
V10Inspector
V Iriarte

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.



BROWN-PACIFIC, INCORPORATED
13639 BORA DR. / SANTA FE SPRINGS / CALIFORNIA 90670
(562) 921-3471 • (562) 921-7012 FAX

MATERIAL TEST REPORT

FOB.	SFS	SHIP VIA	BP TRUCK	JOB NO.	INVOICE NO.
					0-78429
SHIP TO SOLD TO	CHERRY AEROSPACE LLC 1224 E WARNER AVE SANTA ANA, CA 92707-0157			ORDER DATE 11/27/12	THIS MATERIAL WAS MANUFACTURED AND TESTED IN CONFORMANCE WITH THE NOTED SPECIFICATIONS. THE INFORMATION PRESENTED HEREIN IS CORRECT AS CONTAINED IN THE COMPANY RECORDS. FACILITY IS MERCURY & RADIOACTIVE FREE. BY: <i>AML</i> A. LOPEZ, LAB SUP 6/3/2013 ALB
				CUST. P.O. NO. PO146787-2	
				DUE DATE 06/08/13	
	CHERRY AEROSPACE LLC ATTN: A/F PO BOX 2157 SANTA ANA, CA 92707-0157			13 coils 2055 #	
PRODUCT ORDERED				QTY. ORDERED	DFAR 252.225-7014 ALT. 1 COMPLIANT
0.374 DIA TYPE M-400 CONVERTED TO 0.1225/0.1235 SEAMSAFE MIRAFLEX COATED COIL				2000	KNOWINGLY OR WILLFULLY RECORDING FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHABLE AS A FELONY UNDER FEDERAL LAW, TITLE 18, CHAPTER 47.

SPECIFICATIONS

M015.1230 REV AC (W/LETTER DATED 6/13/12) QQ-N-281-D CLASS A CHEM
ONLY AMS 4730F CHEM ONLY

GRADE	MILL NO.	HEAT NO.
M-400	29	165791

CHEMICAL ANALYSIS

C: 0.02	AL: 0.04
MN: 0.9	TI:
P: <0.002	B:
S: 0.003	CB:
SI: 0.12	TA:
NI: 64.6	CB+TA:
CR:	CU: 32.6
MO:	SE:
CO: 0.02	N:
V:	FE: 1.55
CA:	PB: <0.001
MG:	BI:
ZN: <0.01	SN: <0.002

ASTM GRAIN SIZE: 6/7

VDM, GERMANY

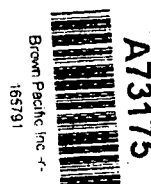
MACRO:

MICRO:

OTHER:

MECHANICAL PROPERTIES AND CAPABILITY

AS SHIPPED PROPERTIES	TENSILE, KSI	YIELD, KSI	% ELON
	75.4	54.3	
	% RA	HARDNESS	SHEAR, KSI
ETT °F	TENSILE, KSI	YIELD, KSI	% ELON
			% R.A.
STRESS RUPTURE	TEMP °F	STRESS, KSI	HOURS
	TEMP °F	STRESS, KSI	HOURS
H.T. PROCEDURE			
	TENSILE, KSI	YIELD, KSI	% ELON
	% R.A.	HARDNESS	SHEAR, KSI
H.T. PROCEDURE			
	TENSILE, KSI	YIELD, KSI	% ELON
	% R.A.	HARDNESS	SHEAR, KSI
H.T. PROCEDURE			
	TENSILE, KSI	YIELD, KSI	% ELON
	% R.A.	HARDNESS	SHEAR, KSI



JUN 13 2013



Outokumpu VDM

This material is free from Mercury, Radium or Alpha particle contamination.

As far as US-laws are applicable, the recording of false, fictitious or fraudulent statements or entries on this document may be punished as a felony under federal statutes including federal law, title 18, chapter 47

Country of Origin and Melt: Federal Republic of Germany

Product conforms with the requirements of DFARS 252.225-7014 ALT I

The material has been manufactured without the use of ozone depleting chemicals

Inclusion Level according to ASTM E 45

Typ A thin: 1.5

Typ B thin: none

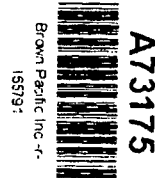
authorized inspection representative: Ulrich Titze

Tel: +49 2392 55-2640

Fax: +49 2392 55-2636

E-Mail: ulrich.titze@outokumpu.com

This certification was created by machine and is valid without signature



JUN 13 2013



CERTIFICATE OF TESTS

CERT SERIAL# 000842843



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610) 208-2000 (800) 338-4592

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

10/02/12

CUSTOMER/BESTELLER/CLIENT

SELLER/VERKÄUFER/VENDEURPAGE 1 OF 2

CHERRY AEROSPACE LLC
PO BOX 2157
1224 E WARNER
SANTA ANA , CA 92707

CARPENTER TECHNOLOGY CORP

101 W. BERN STREET
READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
PO126508-4	LOS944501 L39388	10/02/12	4761.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 566214

PRODUCT DESCRIPTION: CARPENTER 15-7 PH ANNEALED COLD FINISH C HDG SC2 STRAND
----- CU/SOAP JIT

SPECIFICATION: CHERRY AEROSPACE M-84 REV AC (06/22/10) EXCPT LTR (07/25/11)
----- PENDING
AMS 5657 REV C (08/ /07) (CHEM ONLY)

SIZE 0.083000 IN. (2.11 MM) RD WIRE

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN(XRF)	SI(XRF)	P (XRF)	S (COM)	CR(XRF)
0.08	0.54	0.26	0.014	0.001	15.38
NI(XRF)	MO(XRF)	AL(XRF)	N (FUS)		
7.38	2.15	1.26	0.027		

CAPABLE OF SURFACE FINISH OF 63 RMS MAX

MICRO SURFACE DEFECT - ACCEPTABLE (COILS 1 THRU 26 F & B) (LOT 1)
MICRO SURFACE DEFECT - ACCEPTABLE (COILS 1 THRU 2 F & B) (LOT 2)

HARDNESS AS SHIPPED, HV - 296 (CENTER)
PER ASTM E384 500 GRAM LOAD

(T)RANSVERSE	(L)ONGITUDINAL	L
YIELD STRENGTH, (0.20 %) KSI(MPA)	113.0(779)	
TENSILE STRENGTH, KSI(MPA)	161.0(1110)	
ELONGATION IN .33", %	34.0	

CAST TEST: ACCEPTABLE

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.

OCT 31 2012



CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

Certificate of Conformance

Sold To: CHERRY AEROSPACE
SANTA ANA OPERATIONS
1224 EAST WARNER AVE
SANTA ANA, CA 92705-5414

Date Shipped: 10/25/2013
PO #: VP125694
Radcliff No.: 130265
Heat No.: KUAS00138
Qty. Shipped: 83 LBS-6-BLACK MIG
SPOOLS

Item Description

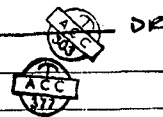
.006 X .011 X .056 A286 Stainless Steel SPECIAL SHAPE AMS 5731 REV L,
AMS 5737 REV P
CHEM ONLY
Melting Country: France Producing Country: France
Notes:
PART# M189.44 RV W
CONSIGNMENT ORDER

Chemical Analysis

Al: 0.158%	B: 0.007%	C: 0.038%	Co: 0.203%
Cr: 14.98%	Cu: 0.126%	Mn: 1.78%	Mo: 1.27%
Ni: 24.52%	P: 0.019%	S: 0.002%	Si: 0.149%
Ti: 2.2%	V: 0.319%		

NOV 15 2013

FEB 10 2014



Mechanical Properties

Tensile: 96 KSI

We certify that the chemical analysis, physical properties, and mechanical test results are correct as contained in our records, and that they conform to customer requirements.

Material as shipped, is free from mercury contamination.

Material is DFAR compliant

Lisa Piatek

Lisa Piatek
Certification Clerk





KOS LIMITED

131-1, YUSAN-DONG, YANGSAN-SI, KYUNGNAM, KOREA
TEL : (055) 389-1050 FAX : (055) 385-9189
E-mail : kosyrd@koswire.com

0300A286ANRL

Inspection Certificate

DATE OF ISSUE: 2013-07-17

DESCRIPTION	STAINLESS STEEL WIRE FOR COLD HEADING (TSB)		
MILL CERT. NO.	AB1-201307A-0161	GRADE	A286VAR
P.O. NO.	1022369	DIAMETER	0.0300 inch
INVOICE NO.	B135086/01 (B135231-01)	FINISH	DU X-CC (760-SH(H))
CONTRACTOR	KOS AMERICA, INC.	QUANTITY	667.6 LBS (2 SPOOLS)
CUSTOMER	INTERWIRE GROUP (HEAD OFFICE)	APP. SPEC	BUYER'S SPEC

CHEMICAL COMPOSITION

(wt%)

COMPONENT CH. NO.	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	Al
KUAS00138	0.0380	0.1490	1.7800	0.0190	0.0020	24.5200	14.9800	1.2700	0.1260	0.3190	0.1580

INSPECTION RESULTS

ITEMS NO.	SIZE	T/S	R/A				LOT NO.	REMARK
	(inch)	(ksi)	(%)	()	()	()		
	+0.00050 -0.00050	110.0 90.0						
1.	0.0295	109.5	64.3				1B1211-30707-0001	KVAS00138
3	0.0298	109.8	64.5				1B1211-30710-0003	
REMARKS				NOV 15 2013				D/C
D/A CONT. NO : KSS1211/13 0300A286ANRL				FEB 10 2014				
				We hereby certify that the material described herein has been made in accordance with the specification of the order.				S. H. AHN
				MANAGER OF Q.C Dept.				

NOV 15 2013

FEB 10 2014



RAO LIFE WIRE INC
KUSAS00138



A73929

END



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO25790**

Purchase Order Date 9/16/2014

PO Print Date 9/16/2014

Page Number 1 of 2

Order From :

VU-BEA001

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 305-925-2600

Ship To Contact

Ship To Phone

Ship Via: FedEx PI collect

Ship Acct:

Buyer

Michael Gregoire

Customer POID

Customer Tax # 10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	AN3C11A	BOLT	9/18/2014 Yes 9/18/2014		50.00 Each	\$0.80	\$40.00
Line Total:							\$40.00
2	MS27039C1-14	Screw	9/18/2014 Yes 9/18/2014	FN	100.00 Each	\$0.55	\$55.00
Line Total:							\$55.00
3	CR3553-4-02	RIVET	9/18/2014 Yes 9/18/2014	FN	100.00 Each	\$1.09	\$109.00

Note:

9/16/2014



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO25790**

Purchase Order Date 9/16/2014

PO Print Date 9/16/2014

Page Number 2 of 2

Order From :

VU-BEA001

Ship To : DART AEROSPACE LTD

B/E AEROSPACE INC
88289 EXPEDITE WAY
CHICAGO, IL 33172
USA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

305-925-2600

Ship To Contact

Ship To Phone

Ship Via:

FedEx PI collect

Ship Acct:

Buyer

Michael Gregoire

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Total: \$109.00

4 71401-45

9/18/2014

0.00

\$0.00

\$0.00

No

Each

Procurement Quality Clauses

9/18/2014

A005 RIGHT OF ENTRY

A026 CERTIFICATION OF MATERIAL CONFORMANCE

A032 PUBLIC LAW 101-592 FASTENER QUALITY ACT

A033 STATEMENT OF CONFORMITY/TEST RECORDS

FOR NAS, AN and MS FASTENERS

A040 NOTIFICATION OF QUALITY ESCAPE

A041 QUALITY MANAGEMENT SYSTEM

A042 DART NOTIFICATION BY SUPPLIER

A043 RETENTION OF QUALITY DOCUMENTS

Line Total: \$0.00

PO Total: \$204.00

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr: 1

Change Date: 9/16/2014



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO25790

LIN#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
3	100	EA	CR3553-4-02		87827763	CHERRY AEROSPACE SAN 11815			


Jason Lewis
Vice President of Quality

09/16/14



CHERRY®
AEROSPACE
 SPS Fastener Division, a PCC Company

Cherry Aerospace
 1224 East Warner Avenue
 Post Office Box 2157
 Santa Ana, CA 92707-0157
 USA



PACKING LIST

Order No: SO377848 Page: 1
 Order Date: 07/26/13
 Print Date: 12/12/13



Sold-To: 10015341

Ship-To: 10015341

S O L D T O	B/E AEROSPACE
	PO BOX 025263
	MIAMI, FL 33102-5263
	USA

S H I P T O	B/E AEROSPACE
	PO BOX 025263
	MIAMI, FL 33102-5263
	USA

Salesperson (s):110

Purchase Order: ORHY01

Credit Terms: NET 30
 Net 30

Ship Via: FED EX NATIONAL CL
 FOB: Origin - Collect

Remarks:

IF UNDER 150# SHIP FEDEX GROUND COLLECT ACCOUNT# 0331-0149-0
 IF OVER 150# SHIP FED EX NATIONAL ACCOUNT# 018757 - DO NOT INSURE
 DO NOT PREPAY AND ADD TO ANY OF THE ABOVE METHODS
 DO NOT SHIP EARLIER THAN TWO (2) WEEKS PRIOR TO DUE DATE, UNLESS SPECIFIED.

BRITISH AEROSPACE APPROVAL# BAe/AG/30158/MAA to BAe/AG/QC/SC1 PART 3
 AIRBUS APPROVAL# 30114

GOODS OF UNITED STATES ORIGIN

TEST REPORTS ENCLOSED

ECCN: EAR99

DO NOT DESTROY...

*IF APPLICABLE, PART MEETS DFARS CLAUSE 252.225-7009 ALT I
 *PREFERENCE FOR DOMESTIC SPECIALTY METALS

CHERRY DOES NOT ACCEPT QAP33 A.3 ITEM 3

Unless otherwise specified on this order, Cherry will manufacture and
 certify parts to the part number's latest revision. Latest revisions are
 shown at <https://bizpartner.cherryaerospace.com/partrevisions.htm> under
 "Part Number Revision List".

REFERENCE PURCHASE ORDER DEVIATION REQUEST FORM DATED 7/31/12
 RELEASE# WZ4FORHY01

Ln	Item Number	Site T LocationLot/Serial	Qty Open Qty to Ship UM	Promised Shipped
1	CR3553-4-02 Customer Item: BACR15FR4M2R ASNA0078E402X	1600	EA	02/20/14

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

ATTENTION: PURCHASING DEPARTMENT

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

Quality Assurance Representative

Signed
SIM NGUYEN



**CHERRY®
AEROSPACE**

SPS Fastener Division, a PCC Company

Cherry Aerospace
1224 East Warner Avenue
Post Office Box 2157
Santa Ana, CA 92707-0157
USA



PACKING LIST

Order No: SO377848

Page: 2

Order Date: 07/26/13

Print Date: 12/12/13



Sold-To: 10015341

Ship-To: 10015341

S
O
L
D
T
O

B/E AEROSPACE
PO BOX 025263
MIAMI, FL 33102-5263
USA

S
H
I
P
T
O

B/E AEROSPACE
PO BOX 025263
MIAMI, FL 33102-5263
USA

Ln	Item Number	Site T Location Lot/Serial	Qty Open Qty to Ship	UM	Promised Shipped
1	CR3553-4-02 CAN43079M4-2 MBBN3012M3602				
		B0303 87854046	4696.0	()	
		B0906 87857515	13772.0	()	
		C0303 87852289	15893.0	()	
		D0503 87827763	15964.0	()	
		E0105 87862056	16273.0	()	
		E0903 87858830	4100.0	()	
		G0803 87857906	6700.0	()	
		K0202 87857516	16214.0	()	
		K0204 87857905	6393.0	()	

**TEST REPORTS ENCLOSED
DO NOT DESTROY**

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law is prohibited

CERTIFICATION

The material and/or parts we are furnishing in this shipment (as shown above) on the subject Purchase Order conform to the order and applicable specifications. Evidence that the material and/or parts meet the specifications and results of all tests for each lot affected will be in our files and will be available for your inspection at any reasonable time.

ATTENTION: PURCHASING DEPARTMENT

Quality Assurance Representative

Signed
SIM NGUYEN

**CHERRY AEROSPACE**1224 East Warner Avenue
Santa Ana, CA 92707-0157Accredited Chemical Processing
Heat Treating
ISO/IEC 17025
Material Testing Lab**Final Inspection & Test Report****CherryMax® Rivet****An ISO9001 and AS9100 registered company. OASIS #6111041606**

Part Numbers	Rev	Proc. Spec.	Rev	Lot I.D. No.: 87827763	
CR3553-4-02	AC	PS-CMR-3000	R	Lot Size: 16,000	
CR3553PR-4-02	AC	PS-CMR-3000	R	MFG. Date: June 06, 2013	
** See 2nd Page for the Customer Parts					

ASSEMBLY DATA

TYPE	ID #	CERT #	MATERIAL	FINISH	LUBE
Rivet	87810287	A71878	QQ-N-281/MONEL	None	None
Stern	87806705	A71604	AMS5657 / 15-7PH	None	AS5272, Type 1, Moly Disulfide
Collar	00000000	A72891	A-286 / AMS5731	Passivate per AMS2700	None

W.O. #: 5520951

Final Lube: None

QUALITY CONFORMANCE/ACCEPTANCE RESULTS

MIN REQ'D SAMPLE SIZE SPECS	INSTALLED SHEAR		TENSION		SPINDLE RETENTION		DISASSEMBLY
	751		490		150		10
	5	5	5	5	5	5	5
	C-N	B	C-N	B	C-N	B	C-N-B
RESULTS	920	920	622	662	338	338	48
	925	925	648	648	316	316	36
	973	973	668	668	290	290	28
	974	974	656	656	302	302	50
	965	965	657	657	350	350	41
C=CR N=NAS M=MIL B=BAC LOAD VALUES IN POUND							

<u>PCS.</u>	<u>ITEM</u>	<u>STATUS</u>	<u>PCS.</u>	<u>ITEM</u>	<u>STATUS</u>
20	EXAMINATION	PASS	20	INSTALLATION (Min and Max Grips)	PASS

Comments:

Blind Fastener

Tr. Rev: -	Q Code
Rev. Date: 6/6/2013	V01
Inspector J Esquivel	

The parts contained in this shipment have been manufactured and inspected in accordance with TSO-C148. The conditions and tests required for TSO approval of this article are minimum performance standards. Aircraft fasteners approved under this TSO are not necessarily interchangeable with other aircraft fasteners approved under this TSO. Fasteners of similar dimensional properties may have widely varying performance and metallurgical properties. Substitution of parts may only be done if acceptable to or approved by the Administrator.

This test report shall not be reproduced except in full, without the written approval of the laboratory.
The recording of false, fictitious, or fraudulent statement or entries on the certificate may be punished as a felony under Federal law.

HEAT/LOT

MM73P2BR11

Page 1

SALES ORDER
106992 / 8

Date Printed 10/26/2012

A71878

A-1 Wire
MAA73P2BR11




Suzanne Mullins
Quality Assurance Manager



HUNTINGTON ALLOYS CORPORATION
3200 Riverside Drive, Huntington, West Virginia 25705-1771 USA
Tel: +1.304.526.5100 Toll-Free in the USA: 1.800.334.4626
Fax: +1.304.526.6643 info@specialmetals.com

Certificate No. 8574-00

Dated 26-SEP-12

Page No. 1 / 3

CERTIFIED MATERIALS TEST REPORT

Note: The recording of false, fictitious or fraudulent statements on entries on this document may be punishable as a felony under federal statute.

This report relates only to the item(s) tested and may not be reproduced except in full.

Customer

A-1 WIRE TECH
C/O HUNTINGTON ALLOYS CORP
ACCOUNTS PAYABLE
3200 RIVERSIDE DRIVE
HUNTINGTON WV

Ship To

A-1 WIRE TECH
52800 HIGGINS BLVD
ELKHART
IN
46514

Sales Order Number

100055232 / 1.2

Purchase Order Number

33208

Mark Order Number

33208-3

Material Heat / Lot Identity

MM73P2BR11

UNS Number

N04400

Material Description

MONEL alloy 400, AIR, , HOT ROLLED ROD - COIL, PICKLED, ANNEALED, .5310, IN
8 PCS 7012 LBS

Specifications

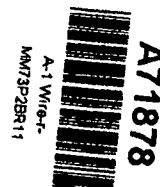
US FED QQ-N-281D AM 2 CL A CHEM ONLY/ ASTM B 164-03 (2008) CHEM ONLY/ ASME SB-164 2010 EDITION 11 ADDENDA CHEM ONLY/ SAE AMS 4730G CHEM ONLY/ NACE MR0175-ISO 15156-3 2ND EDITION (2009)/ GE S-400 (10-10-2011)/ GE S-1000 (8-1-2011)/ ASME SECTION III 2010 EDITION 11 ADDENDA NCA-3800/ A-1 M400LC MOD FOR CUST 295-01 REV 4-11-08.

NOV - 8 2012



ANALYSIS

	C %	MN %	FE %	S %	SI %	CU %	NI %
	.02	1.00	1.56	.002	.16	32.70	64.25
Method	CS344	XR26	XR26	CS344	XR26	XR26	XR26
	AL %	P %	PB %	SN %	ZN %		
	.02	.01	.00017	.00020	.00039		
Method	JACO	JACO	ICP-MS	ICP-MS	ICP-MS		



BRIGHTRAY, CORRONEL, FERRY, INCOCLAD, INCOLOY, INCONEL, INCOTHERM, INCO-WELD, KOTHERM, MAXORB, MONEL, NILO, NILOMAG, NIMONIC, NIOTHERM, NI-SPAN, UDIMET & WIGGIN are trademarks of the Special Metals group of companies



HUNTINGTON ALLOYS CORPORATION
3200 Riverside Drive, Huntington, West Virginia 25705-1771 USA
Tel: +1.304.528.5100 Toll-Free in the USA: 1.800.334.4628
Fax: +1.304.528.5643 Info@specialmetals.com

Certificate No. 8574-00

Dated 26-SEP-12

CERTIFIED MATERIALS TEST REPORT

Page No. 3 / 3

HUNTINGTON ALLOYS CORPORATION IS AN ACCREDITED INDEPENDENT NADCAP MATERIALS TESTING LABORATORY VIA CERTIFICATE NUMBER 127805 (EXPIRES APRIL 30, 2013) FOR ALL TESTING SPECIFIED IN THE SCOPE OF ACCREDITATION. MATERIAL PRODUCED UNDER QA SYSTEM DOCUMENTED IN HUNTINGTON ALLOYS CORP QA MANUAL REV. 49, DATED 2/17/2011. QUALITY SYSTEM CERTIFICATION: ISO 9001:2008 (ABS-QE CERT. 30125); EN 10 204/DIN 50049 (TYPE 3.1)

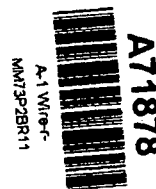
VISUAL AND DIMENSIONAL EXAMINATION SATISFACTORY.

MATERIAL, WHEN SHIPPED, IS FREE FROM CONTAMINATION BY MERCURY, RADIUM, ALPHA SOURCE, AND LOW MELTING ELEMENTS.

CHEMICAL ANALYSIS AS REQUIRED FOR CARBON, SULFUR, NITROGEN, OR OXYGEN IS PERFORMED BY COMBUSTION TECHNIQUES. ALL OTHER REPORTED ELEMENTS ARE ANALYZED BY X-RAY AND/OR EMISSION SPECTROSCOPY."

AUTHORIZED QUALITY CERTIFICATION REPRESENTATIVES:

W.E. BOLEN, M.A. MORRISON, D.K. MILLER, K.R. SMITH, G.J. BURKHEAD



NOV - 8 2012



End Of Certificate

This is to certify that all required samplings inspections and tests have been performed in accordance with the order and specification requirements. The test report represents the actual attributes of the material furnished and the values shown are correct and true. The material described by this certificate is in full compliance with all order and inspection requirements. We hereby certify that the figures given are in accordance with the specified contract requirements.

REV. 8/08

Signed

For and on behalf of HUNTINGTON ALLOYS CORPORATION
Authorized Signature

BRIGHTRAY, CORRONEL, FERRY, INCOCLAD, INCOLOY, INCONEL, INCOTHERM, INCO-WELD, KOTHERM, MAXORB, MONEL, NILO, NILOMAG, NIMONIC, NIOOTHERM, NI-SPAN, UDIMET & WIGGIN are trademarks of the Special Metals group of companies

CERTIFICATE OF TESTS
ABNAHMEPRUEFZEUGNIS
CERTIFICAT DE CONTROLE

CERT-SERIAL# 000843114


CARPENTER

 Carpenter Technology Corporation
 101 West Bern Street, Reading, Pa. 19601
 Tel: (610) 208-2000 (800) 338-4592

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

10/02/12

CUSTOMER/BESTELLER/CLIENT

SELLER/VERKÄUFER/VENDEURPAGE 1 OF 2

 CHERRY AEROSPACE LLC
 PO BOX 2157
 1224 E WARNER
 SANTA ANA , CA 92707

CARPENTER TECHNOLOGY CORP

 101 W. BERN STREET
 READING , PA 19601

CUSTOMER ORDER NO./BESTELL-NR./N° DE COMMANDE	CARPENTER NO./WERKS-NR./N° DE REFERENCE INTERNE	DATE/DATUM/DATE	WEIGHT/GEWICHT/POIDS
PO126508-9	LOS945501 L39392	10/02/12	957.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 566322

 PRODUCT DESCRIPTION: CARPENTER 15-7 PH ANNEALED COLD FINISH SEAM FREE C HDG
 ----- SC2 STRAND CU/SOAP
 PART NUMBER: M084.0975

 SPECIFICATION: CHERRY AEROSPACE M-84 REV AC (06/22/10) EXCPT LTR (07/25/11)
 ----- PENDING
 AMS 5657 REV C (08/ /07) (CHEM ONLY)

SIZE 0.097500 IN. (2.48 MM) RD WIRE

PRIMARY HEAT CHEMISTRY (WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN (XRF)	SI (XRF)	P (XRF)	S (COM)	CR (XRF)
0.07	0.55	0.31	0.014	0.001	15.41
NI (XRF)	MO (XRF)	AL (XRF)	N (FUS)		
7.34	2.14	1.34	0.026		

CAPABLE OF SURFACE FINISH OF 63 RMS MAX

 HARDNESS AS SHIPPED, HV - 312 (CENTER)
 PER ASTM E384 500 GRAM LOAD

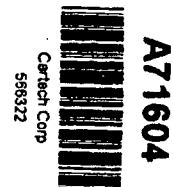
(T) RANSVERSE	(L) ONGITUDINAL	L
YIELD STRENGTH, (0.20 %) KSI (MPA)	117.0 (807)	OCT 3 1 2012
TENSILE STRENGTH, KSI (MPA)	133.0 (917)	
ELONGATION IN .39", %	33.0	

MICRO SURFACE DEFECT - ACCEPTABLE (COILS 1 THRU 5 F & B)

CAST TEST: ACCEPTABLE

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.



CONTINUED ON NEXT PAGE

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
 Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgewiesenen Daten oder Zertifizierungen.
 Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.

Certificate of Analysis

Radcliff Wire Inc. 97 Ronzo Rd., P.O. Box 603, Bristol, CT 06010

Date Shipped: 4/4/2013

PO #: VP 125694

Qty. Shipped: 101 LBS-9-BLACK
MIG SPOOLS

Radcliff No.: 128158

Heat No.: QM399

Customer: CHERRY AEROSPACE
SANTA ANA OPERATIONS
1224 EAST WARNER AVE
SANTA ANA, CA 92705-5414

Country of Origin: FRANCE

Original Mill Source: FRANCE

Size: .006 X .011 X .056

Material: A286 Stainless Steel

Description: SPECIAL SHAPE

Specification: AMS 5731 REV L, AMS 5737 REV P
CHEM ONLY

Chemical Properties

Al: 0.15%	B: 0.006%	Bi: <0.00002%	C: 0.03%	Co: 0.14%
Cr: 14.8%	Cu: 0.14%	Fe: BAL%	Mn: 1.74%	Mo: 1.47%
Ni: 25.78%	P: 0.016%	Pb: <0.0002%	S: 0.002%	Si: 0.14%
Ti: 2.08%	V: 0.3%			

Notes:

DFAR COMPLIANT
PART# M189.44 REV W
NET WGT 101 LBS
CONSIGNMENT ORDER

MAY 30 2013



Tensile: 96 KSI

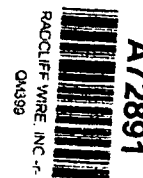
Rockwell:

Certs/Material

Lisa Platek

Certification Clerk

The material as shipped is free from mercury contamination



Client Customer Kunde	: CENTRAL W UNION	N° Réference Our reference Ihrer Auftrag Nr.	: 303811/01
V/Commande Your order Ihre Bestell. Nr.	: 2009916	du Of : 07.20.11	
Specification Specification Vorschrift	: D.3.PRS.010.S REV.B 05/05/11		

ALLONGEMENT..... ELONGATION..... 21.0 %

ETAT HYPERTREMPE 900° + VIEILLISSEMENT 720°16h AIR
HEAT TREATMENT OF TEST SPECIMEN 1650°F 1H WATER+1325°F16h AIR

LIMITE ELASTIQUE.....	YIELD STRENGTH 0.2%.....	778 MPA
RESISTANCE.....	TENSILE STRENGTH.....	1128 MPA
ALLONGEMENT.....	ELONGATION SUR 40.....	29.0 %
STRICTION.....	RED. OF AREA.....	48.0 %
DURETE HB.....	HARDNESS.....	327 HB

FLUAGE

STRESS RUPTURE TEST AT 1200°F (649°C)

UNDER 65,000 PSI (448MPa)

DUREE DE VIE.....	TIME.....	189.9 H
ALLONGEMENT.....	ELONGATION.....	25.0 %

MELTING PROCESS: EF+VAR NO WELDING WITH FILLER METAL HAS BEEN PERFORMED STRESS RUPTURE AND AGE HARDENING AND CHEMISTRY TO MEET

LATEST ISSUE OF AMS 5731L, AMS 5732J, 5734K AND 5737P
ARCELORMITTAL SNA CERTIFIES THAT THIS MATERIAL HAS BEEN MELTED
PRODUCED IN FRANCE, QUALIFYING COUNTRY, AS REQUIRED BY
DFARS 252.225-7014

MATERIAL IS FREE FROM MERCURY, RADIUM, OR ALPHA SOURCE
CONTAMINATION

THE WILLFUL RECORDING OF FALSE OR FRAUDULENT STATEMENTS ON
THIS DOCUMENT MAY RESULT IN PUNISHMENT AS A FELONY UNDER
FEDERAL STATUTES

MAY 30 2013



RADCLIFF WIRE INC
OM399



A72891



Carpenter Te
101 West Be
Tel: (610) 208

10/02/
CUSTOM

CHERRY
PO BOX
1224
SANTA

CUSTOMER ORDER NO

PO126508-9

HEAT NUMBER /
CARPENTER'S
THE REQUIREMENT
REVIEW INSTIT
3.1 OF EN 10
IN ACCORDANCE
AS DOCUMENTED

TEST METHODS
ACCEPTANCE,

M084.0975

PERTH, ON
ERIN, ON
DUNFRIES, AR
LANCASTER, SC

613-267-3752 FAX 613-267-5617
619-833-8832 FAX 619-833-2213
870-382-2980 FAX 870-382-6988
803-283-3353 FAX 803-283-6303



FGND DU LAC, WI
UNION, IL
PERRIS, CA

920-928-0609, FAX 920-928-0652
815-923-2131 FAX 815-923-2126
951-657-2105 FAX 951-943-8061

THE LEADING MANUFACTURER OF STAINLESS STEEL AND NICKEL ALLOY WIRE PRODUCTS
EXECUTIVE OFFICES: PERTH, ON CANADA - EMAIL: sales@centralwire.com

CENTRAL WIRE
6509 OLSON ROAD
TEL: 815-923-2131

UNION, IL 60180-9730
FAX: 815-923-2126

CERTIFICATE OF CONFORMANCE

SOLD
TO

RADCLIFF WIRE INC.
P. O. BOX 603
BRISTOL
USA

CT 06011-0603 SHIP
TO

RADCLIFF WIRE INC.
97 RONZO ROAD
BRISTOL,
USA

CT 06011-0603

CUSTOMER'S PO NO.	TYPE OF CERT	CUSTOMER	ORDER NO.	WORK ORDER	DATE SHIPPED
45995	Customer	124610	117-181	1 4139972	1/08/13
SPECIFICATIONS:					

ITEM DESCRIPTION		
DESCRIPTION	SPEC. CLASS	HEAT
Forming A286SF SKIN PASSED Bright .0300 200LB.Plus Clean	Melt mill Aperam Country of origin France	QM399
	QTY SHIP 897	044

CHEMICAL ANALYSIS						
C .03	MN 1.74	SI .14	P .016	S .002	CR 14.80	NI 25.78
MO 1.47	CU .14	CO .14	AL .15	TI 2.08	FE Balance	B .006
V .30	BI < .00002	PB < .0002				

MECHANICAL PROPERTIES						
AS SHIPPED PROPERTIES:						
TENSILE 118.000 KSI MIN	TENSILE 121.000 KSI MAX					
AFTER HEAT TREAT PROPERTIES:						

"PASSIVATED IN PROCESS"

MAY 30 2013



The material as shipped is free from mercury contamination. I certify the chemical analysis and physical and mechanical test results reported above are correct as contained in the records of the company.

Very truly yours,

[Signature]
AUTHORIZED SIGNATURE

FormSpring Form: #07-T_CERT.P2, 08/19/11

This certification is made
Die vorliegende Zertifi
Ce certificat est unique

A72891
RADCLIFF WIRE, INC
QM399



B/E Aerospace, Inc.

Page: 1 of 1

CONSUMABLES MANAGEMENT

P.O. Box 025263, Miami, FL 33102-5263 • Tel: 305.925.2600 • Fax: 305.507.7191
Plant Location: 10000 N.W. 15th Terrace, Miami, FL 33172 • SITA: MIAMMCR
www.beconsumables.com

Shipped From: 10000 NW 15 TERRACE, MIAMI, FL 33172


Material Certification

The items set forth on the purchase order referred to below have been visually inspected and the dimensions thereof have been measured by us, and based on the aforesaid, as well as the representation made to us by the manufacturers of the items subject of such purchase order, we hereby certify that such items are in conformity with all current governmental and manufacturer's requirements, specifications, drawings, and conform to the purchase order requirements. Said items are in new condition and have not been obtained from any U.S. Government or Military source and are traceable to B/E Aerospace, Inc.

FIRM: DART AEROSPACE LTD

PURCHASE ORDER#: PO25790

LINE#	QUANTITY	U/M	PART-NUMBER	CUST REF#	LOT-NUMBER	MANUFACTURER	CCODE	MFR DATE	EXP DATE
1	50	EA	AN3C11A		68702	NAC FASTENERS	ORPT4		


Jason Lewis
Vice President of Quality

09/16/14

MAC FASTENERS, INC.
1110 ENTERPRISE
OTTAWA, KANSAS 66067

**CERTIFICATE OF CONFORMANCE
AND
MANUFACTURER'S AFFIDAVIT**

CUSTOMER: B/E AEROSPACE

PO: 0REB08

PART NUMBER: AN3C11A

REV: 3

LOT NUMBER: 68702

MANUFACTURED QUANTITY: 6,100

MILL HEAT NUMBER: 568732

COUNTRY OF ORIGIN: UNITED STATES OF AMERICA

DFARS 252.225.7009 Compliant

MERCURY FREE CERTIFICATION

MacFasteners certifies that the parts referenced in the above lot number do not contain Mercury or Mercury compounds, and were manufactured in a Mercury free environment.

We certify that the parts furnished against the above referenced purchase order were manufactured by MAC FASTENERS within the United States, and were processed in accordance with all applicable drawings and specifications. Objective evidence of compliance is on file, subject to examination upon request.

Mac Fasteners is an AS9100C Registered Company- SAI GLOBAL - 0058029
Mac Fasteners is a DISC QSLM approved Manufacturer - CAGE Code 0RFT4
Mac Fasteners is an Airbus approved Supplier - 203399

DATE: 04/23/14


QUALITY ASSURANCE REPRESENTATIVE

CERTIFICATE OF TESTS
CERT SERIAL# 000883248

ABNAHMEPRUEFZEUGNIS

CERTIFICAT DE CONTROLE



CARPENTER

Carpenter Technology Corporation
101 West Bern Street, Reading, Pa. 19601
Tel: (610)208-2000 (800)338-4592

- THE RECORDING OF FALSE, FICTITIOUS OR FRAUDULENT STATEMENTS OR ENTRIES ON THIS DOCUMENT MAY BE PUNISHED AS A FELONY UNDER FEDERAL STATUTES INCLUDING FEDERAL LAW, TITLE 18, CHAPTER 47.
- THE VALUES AND OTHER TECHNICAL DATA REPRESENT THE RESULTS OF ANALYSES AND TESTS MADE ON SAMPLES COLLECTED FROM THE TOTAL LOT. ORIGINAL DATA RECORDS CAN BE TRACED BY REFERENCE TO THE CARPENTER ORDER NUMBER.
- MATERIAL IS MANUFACTURED FREE FROM MERCURY, RADIUM, ALPHA AND GAMMA SOURCE CONTAMINATION.
- THIS DOCUMENT SHALL NOT BE REPRODUCED, EXCEPT IN FULL, WITHOUT THE WRITTEN CONSENT OF CARPENTER TECHNOLOGY CORPORATION.

06/28/13

CUSTOMER / BESTELLER / CLIENT

SELLER / VERKÄUFER / VENDEUR PAGE 1 OF 1

MAC FASTENERS INC

1110 E. ENTERPRISE
OTTAWA KS 66067

BOL

CUSTOMER ORDER NO. / BESTELL-NR. / N° DE COMMANDE	CARPENTER NO. / WERKS-NR. / N° DE REFERENCE INTERNE	DATE / DATUM / DATE	WEIGHT / GEWICHT / POIDS
79757	W71792	06/28/13	8742.000

HEAT NUMBER / SCHMELZE-NR. / N° DE COULEE: 568732

PRODUCT DESCRIPTION: TYPE 431 COLD FINISH SEAM FREE ANNEALED C HDG CL K1 HVY
----- CU TENSILE MAX 100.0 KSI

SPECIFICATION: ASTM-A493-09

SIZE 0.187500 IN. (4.76 MM) RD WIRE

PRIMARY HEAT CHEMISTRY(WT%): (TEST METHOD IS SHOWN IN PARENTHESIS)

C (COM)	MN(XRF)	SI(XRF)	P (XRF)	S (COM)	CR(XRF)
0.16	0.63	0.49	0.017	0.009	16.1
NI(XRF)					
1.56					

TENSILE AS SHIPPED, KSI(MPA) 98.5(679)

MATERIAL HAS BEEN MELTED AND MANUFACTURED IN THE USA WHICH IS A QUALIFYING COUNTRY TO DFARS REQUIREMENTS 252.225-7014 WITH ALTERNATE 1 FOR QUALIFYING COUNTRY 225.872.1, SUPERSEDED BY DFARS REQUIREMENTS DFARS 252.225-7008 AND 252.225-7009.

THIS ORDER WAS MANUFACTURED IN ACCORDANCE WITH CARPENTER SPECIALTY ALLOYS OPERATIONS QUALITY PROGRAM MANUAL, REVISION 30 DATED 09/28/11.

CARPENTER'S QUALITY MANAGEMENT SYSTEM WAS REGISTERED AS OF NOVEMBER 24, 2010 TO THE REQUIREMENTS OF ISO 9001:2008 APPROVAL CERTIFICATE 10-1385R BY PERFORMANCE REVIEW INSTITUTE. THIS CERTIFICATE OF TEST IS TYPE 3.1 PREPARED IN ACCORDANCE WITH EN 10204 (DIN 50049). WE HEREBY CERTIFY THAT THE ABOVE TEST DATA ARE IN ACCORDANCE WITH THE PURCHASE ORDER AND SPECIFICATION REQUIREMENTS, AS DOCUMENTED IN THIS CERTIFICATE OF TESTS.

TEST METHODS ARE PER THE ASTM STANDARDS ON FILE AND IN EFFECT AT TIME OF ORDER ACCEPTANCE, STANDARD PRACTICES, OR AS AGREED UPON BETWEEN CARPENTER & CUSTOMER.

GARY BROWN
MANAGER - SPECIFICATIONS/CERTIFICATIONS
CARPENTER TECHNOLOGY CORPORATION

Gary Brown

This certification is made to the customer printed on this form. Carpenter neither makes, nor assumes responsibility for, any representation or certification to other parties.
Die vorliegende Zertifizierung ist nur für den in diesem Formular genannten Kunden gültig. Carpenter übernimmt gegenüber Dritten keinerlei Haftung für die ausgetesteten Daten oder Zertifizierungen.
Ce certificat est uniquement valable pour le client dont le nom est imprimé sur ce formulaire. Carpenter n'assume pas de responsabilité pour une certification vis-à-vis d'une tierce personne.